

AMENDMENTS TO THE SPECIFICATION:

At p. 5, lines 9-10, please replace the paragraph with the following amended paragraph:

[[FIGS. 2a and 2b are]] FIG. 2 is a plot of the absorption spectra of thulium and holmium doped glasses[[, respectively]];

At p. 6, l. 30, please replace the paragraph with the following amended paragraph:

A source of pump radiation 22, e.g. a single-mode or multi-mode laser diode, illuminates gain fiber 12 at a wavelength, typically 800nm, within the absorption band. As shown in [[figure 2a]] figure 2, the absorption band 24a of triply ionized thulium occurs from 750 to 820 nm. The pump wavelength can be around 1.2 μ m and 1.7 μ m to excite Thulium from 3H_6 state to 3H_5 and 3F_4 levels. [[As shown in figure 2b, the]] The absorption band 24b of triply ionized holmium occurs from 1800 to 2100 nm. The pump wavelength can be around 1800 μ m and 2100 μ m to excite Holmium from 5I_8 to 5I_7 levels. Typically one excites thulium ions, which in turn transfers energy to the holmium ions. The pump wavelength can also be shifted to other wavelengths to excite Yb and Er when these ions are doped into the host. Pumping of the doped glass populates the thulium upper level creating a population inversion. Spontaneous emission catalyzes the stimulated emission of the thulium (holmium) ions in the upper level over a range of 1800 to 2000nm (1900 to 2200nm). The emission peak of thulium (holmium) occurs at a wavelength of approximately 1800nm (2080nm).

On page 1 before "Background of the Invention", please insert the following new paragraph:

Governmental Rights

This invention was made with Government support under Contract NNL05AA94P awarded by NASA. The Government has certain rights in this invention.